

**REMARKS**

**I. Status of the Claims**

Claims 1-30, 32, and 34-150 are pending. Claims 31, 33, 151, and 152 were canceled previously. Claims 10-12, 21-23, 27, 28, 30, 32, 34, 36, and 49-150 are withdrawn. Claims 1-9, 13-20, 24-26, 29, 35, and 37-48 are under consideration.

**II. Claim Rejections under 35 U.S.C. § 102**

According to the Office, claims 1-9, 16, 17, 19, 20, 24-26, 29, 31, 33, 35, 45, 46, and 47 remain rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 5,597,811 ("*Gruber*"). Final Office Action, page 2. The Office states that "*Gruber* discloses a composition that contains glucosamine and glucosamine is a polysaccharide and the amine group is not considered substituted." *Id.* The Office concludes that the proviso of claim 1 that the amino groups are unsubstituted is therefore met by the teachings of *Gruber*. *Id.*

As an initial matter, Applicants note claims 31 and 33 were canceled by the amendment filed October 4, 2004. As discussed in the September 13, 2004, interview with the Examiner, the teachings of *Gruber* are limited to compositions comprising polyglucosamine *derivatives*. See, for example, the Abstract of *Gruber*. *Gruber* mentions underivatized polyglucosamine only when discussing the preparation of the derivative. For example, columns 3-6 of *Gruber* describe the production of the preferred polyglucosamine derivative in which the amine groups are modified with oxirane carboxylic acid. In particular, column 3, lines 30-32, states that "the oxirane carboxylic acid is preferably substituted onto the free amine of the polyglucosamine." The schematics in columns 3 and 4 each show derivatization of the polyglucosamine on the

amino group, either by formation of a covalent bond or an ionic bond. As discussed in detail beginning at column 7, line 44, it is only the final derivatized product that *Gruber* teaches for use as a component of a personal care product such as a conditioner. The unsubstituted polyglucosamine is not taught for use in the compositions of *Gruber*. Because *Gruber* does not describe a composition comprising at least one compound comprising at least one C<sub>5</sub> to C<sub>7</sub> polysaccharide in which the amino groups are unsubstituted, *Gruber* does not anticipate claim 1.

In addition, *Gruber* does not describe a composition comprising at least one compound comprising at least two quaternary ammonium groups and at least one compound comprising at least one C<sub>5</sub> to C<sub>7</sub> polysaccharide where the amino groups are unsubstituted. Applicants respectfully maintain that one must pick and choose from isolated passages in *Gruber* to arrive at the claimed invention, which is contrary to the standard required to establish anticipation. *In re Arkley*, 455 F.2d 586, 587 (CCPA 1972); see also M.P.E.P. § 706.02(a) ("For anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly.").

For these reasons and the reasons of record, Applicants respectfully submit that the rejection under 35 U.S.C. § 102 should be withdrawn.

### III. Claim Rejections under 35 U.S.C. § 103

The Office also maintains the rejection of claims 1-9, 13-20, 24-26, 29, 31, and 37-48 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Publication No. 2002/0102228 ("*Dunlop*") in view of U.S. Patent No. 5,597,811 ("*Gruber*"), and further in view of U.S. Patent No. 5,332,581 ("*Yoshihara*"). Final Office Action, page 3. The

Office reiterates its position that *Gruber* teaches polyglucosamines and that polyglucosamines are not considered substituted amino groups. *Id.* Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness, "all the claim limitations must be taught or suggested by the prior art." (M.P.E.P. § 2143.03.) As discussed above, *Gruber* teaches polyglucosamine derivatives in which oxarine carboxylic acid is bonded to the polyglucosamine via the amino group. It is only this derivatized polyglucosamine that *Gruber* teaches may be used in compositions for personal health care. Claim 1 recites C<sub>5</sub> to C<sub>7</sub> polysaccharides where the amino groups are unsubstituted. Because *Gruber* does not teach compositions comprising polyglucosamines in which the amino groups are unsubstituted, as recited in claim 1, *Gruber* does not teach each and every limitation of claim 1 and neither *Dunlop* nor *Yoshihara* remedy this defect. Applicants respectfully submit that a *prima facie* case has not been established and therefore request that the rejection be withdrawn.


#### IV. Conclusion

Applicants respectfully request entry of this Request for Reconsideration under 37 C.F.R. § 1.116. Because no claims have been amended, this Request does not raise new issues or necessitate the undertaking of any additional search of the art by the Office. In view of the foregoing remarks, Applicants submit that the claimed invention is neither anticipated by nor obvious in view of the prior art references cited. Applicants therefore request the Office's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge  
any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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